Quality Control

NCR: Y	es / No				WORK ORDER NON-O	COL	NFORM	MANCE / UPD/	ATE			
	_							í		QA Closed:		2:
Work Orde	r:				DISPOSITION	,			. AGAINST DE	PÄRTMENT,	_	
Part N	0.	·			Rework Scrap Use-as-is		ſ	Skid-tube Machining noforming	Crosstube Small Fab Finishing	l .	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	lo				Work Order Update			` ` —	Composite		Supplier	
Root				Descri	ption of work order update		Initial	Actio	n ·	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descrip	tion	Date	Verification	QC Inspector
Doc/Data												
quip/Tooling		ļ										
Operator	_											
Material												
Setup	_	İ	1									
Other												
Process												
Supplier						İ						
Training												
Jnapproved							···					
						AUL	T CATE	GORY				
Landir	ng Gear			_	General	_	1		<u></u>	1	Г	¬_
,	Bending				Bend	<u> </u>	Grain			Ovalized		Pressure/Forced
1	Centre N		ntric to C)/S _	BOM/Route	\vdash	Hardwa			Over/Under	-	Temperature/Cure
	Cracks	44		<u> </u>	Broken/Damaged	\vdash	4	ion Incomplete		Part Incorre	-	Weld
	Crushed/	'Crimped			Burrs	<u> </u>	-1	ions Incomplete/Un	clear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs			<u> </u>	Contamination	\vdash	Mainte			Part Moved		
}	Heat Tre			<u> </u>	Countersink	\vdash	Mislabe		<u> </u>	Positioned V		٦
,	Inspection		Tube	ļ	Cut Too Short		Misread	1		Power Loss/	Surge _	Other
	Ripples in			<u> </u>	Drill Holes	\vdash	Offset	- W				··········
	Torque V			'	Drawing	-	4	Calibration				
	Turning S	Sequence	<u>;</u>	L	Finish		Out of S	Sequence				

Outside Dimensions

Date: _

DQA:

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID 104989 <i>July-23-13 12:58:23 PM</i>			*1049									
Item ID: Revision ID:	D2012-115- L-Bracket	1		Accept	*N900	040	100)* s	etup Star Stop	1.0	S1* S2*	
Item Name: Start Date: Required Date: Reference:	7/23/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item I Customer:	D:				I	.7/	
Approvals:		in:	Date:	Tooling: SPC (Y/N):		ate:		R	tun Star Stop	, I <i>Z</i> I	R1* R2*	
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
130 *130* Brake NC Brake NC		Form as per dwg NC BRAKE Memo		0.00				_17_			- - 13 (0	19 / DF
140 *140* QC Quality Control		QC5- Inspect part comple	eteness to step on W/O	0.00 PAS 9-89 0.00 PAS 9-89	φ			17				
*150		Identify as per dwg & Sto	ock Location: <u>5706</u> 3	0.00				_17			D4 33 13-09	127
Packaging		Memo		0.00							.	

Packaging

										DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-	COI	NFORN	MANCE / UP	DATE			
	2				·					QA Closed:	Date:	
Work Orde	. .				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
WOIK Olde	·				Rework	٦		Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	0.				Scrap	1	1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is	1		oforming	Finishing	4	re/Packaging	Other
NCR N	0				Work Order Update]		Large Fab	Composite]	Supplier	
Root		<u> </u>		Descri	tion of work order update		Initial	Act	tion	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desci	ription	Date	Verification	QC Inspector
Doc/Data					,							
quip/Tooling												
Operator												
Material												
Setup												
Other												
Process												
Supplier												
Training							1					
Unapproved										L		
						AUI	LT CATE	GORY	<u>-</u>			
Landin	ng Gear				General	_	1		 -	7	 -	1 .
<u> </u>	Bending			_	Bend	_	Grain			Ovalized	<u> </u>	Pressure/Forced
	Centre N	ot Conce	ntric to	o/s	BOM/Route	<u> </u>	Hardwa		<u> </u>	Over/Under	⊢	Temperature/Cure
-	Cracks			-	Broken/Damaged	_	4 '	on Incomplete	<u> </u>	Part Incorre	—	Weld
	Crushed/	Crimped			Burrs	<u> </u>	4	ions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled
ļ	Cuffs			<u> </u>	Contamination	_	Mainte			Part Moved		
1	Heat Trea				Countersink		Mislabe			Positioned V		- .
]	Inspectio	n Strip in	Tube		Cut Too Short		Misread	l		Power Loss/	Surge	Other
ł	Ripples in	n Bend			Drill Holes	1	Offset					

Out of Calibration
Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

Work Orde July-23-13 12:5		04989		*104	1989*					Pa	age 3
Item ID: Revision ID:	D2012-115	-1		Accept	*N900	0401	೧೧ *	Setup	Start Stop	*NS1	
Item Name: Start Date: Required Date: Reference:	7/23/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item I Customer:	D:				IV.72	
Approvals:	Process P QC:	lan:	Date:	Tooling: SPC (Y/N):		ate:		Run	Start Stop	*NR1	*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID		an Acc	_	•	Reject Insp. Number Stam	
*160 *160*		QC21- Final Inspection -	Work Order Release	0.00				#/	M/	3-09-30	<u> </u>

Quality Control

										DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-	COI	NFORM	MANCE / UPI	DATE		· · · · · · · · · · · · · · · · · · ·	
							_			QA Closed:	Date:	
Work Orde	, č •				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Work Orde					Rework	1		Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	0.				Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is	1	Therm	noforming	Finishing	Rec/Sto	e/Packaging	Other
NCR N	0				Work Order Update]		Large Fab	Composite]	Supplier	
Root			[Descri	ption of work order update	T	Initial	Act	ion	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Ct	nief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data												·
Equip/Tooling				,								
Operator												
Material										:		
Setup												
Other		1			•							
Process												
Supplier												
Training						1						
Unapproved		1										
					F	AUI	LT CATE	SORY				
Landir	ng Gear				General		_			=		
	Bending				Bend	L	Grain			Ovalized		Pressure/Forced
	Centre N	ot Conce	ntric to	o/s	BOM/Route 1		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorred	et <u> </u>	Weld
	Crushed/	'Crimped			Burrs		Instruct	ions Incomplete/U	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte	nance		Part Moved		
	Heat Tre	at			Countersink		Mislabe	led		Positioned V	Vrong	
·	Inspection	n Strip in	Tube		Cut Too Short		Misread	ı		Power Loss/	Surge	Other
	Ripples ii	n Bend			Drill Holes	Г	Offset			_		

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

July-23-13 12:58:22 PM

Work Order ID:

104989

Parent Item:

D2012-115-1

Parent Item Name:

L-Bracket

Start Date: 7/23/13

Required Date: 7/23/13

Page 1

Start Qty: 12.00

Required Qty: 12.00

Comments:

IPP REV:A 12.05.29 MADE IN HOUSE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status	
M304S16GA		Purchased	No			100	sf	373.0102	0.016	0.2021052		A.	3-09.	یې
304/316 Sheet .063							•		-			7	<u>> </u>	
				Location		Loc Oty	<u>Lo</u>	c Code	,					
				MAT020		373.0101686			4					
				12	2245	0.1713688								
				12	3136	140.8								
				12	4428	23.61								
				12	5599	5.410631					_			
				μM	126 159 -	203.018169			-18	6157				

126915 -> .0.28

		·									DQA:	Date:	
NCR: Y	es / I	No				WORK ORDER NON-C	ON	NFORM	MANCE / UPI	DATE	QA Closed:	Date:	
Work Orde	. ښ		· · · · · · · · · · · · · · · · · · ·			DISPOSITION				AGAINST DE			
Part N	. —					Rework Scrap Use-as-is		ľ	Skid-tube Machining noforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	0					Work Order Update			Large Fab	Composite		Supplier] .
Root Cause	Da	te	Step	Qty		ption of work order update or Non-conformance		nitial ief Eng		tion ription	Sign & Date	Verification	QC Inspector
Doc/Data	T T												
Equip/Tooling								l					
Operator													
Material											!		
Setup													
Other									: 2				
Process	7 ;.	İ					İ				•	,	
Supplier													
Training													
Unapproved										··			
						FA	AUL	T CATE	GORY				
Landir	ng Gear					General		i	•		1		7
	Bend	ing				Bend		Grain			Ovalized		Pressure/Forced
1	Cent	re Not	Concer	ntric to	O/S	BOM/Route		Hardwa			Over/Under		Temperature/Cure
	Cracl	cs				Broken/Damaged	$\overline{}$		on Incomplete		Part Incorre	—	Weld
Į	Crus	ned/Cri	imped			Burrs	Щ		ions Incomplete/l	Unclear	Part Lost/M	issing	Wrong Stock Pulled
Į	Cuffs	i			<u> </u>	Contamination		Mainte			Part Moved		
	Heat	Treat			1	Countersink		Mislabe	led	1	Positioned V	Vrong	_

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Turning Sequence

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

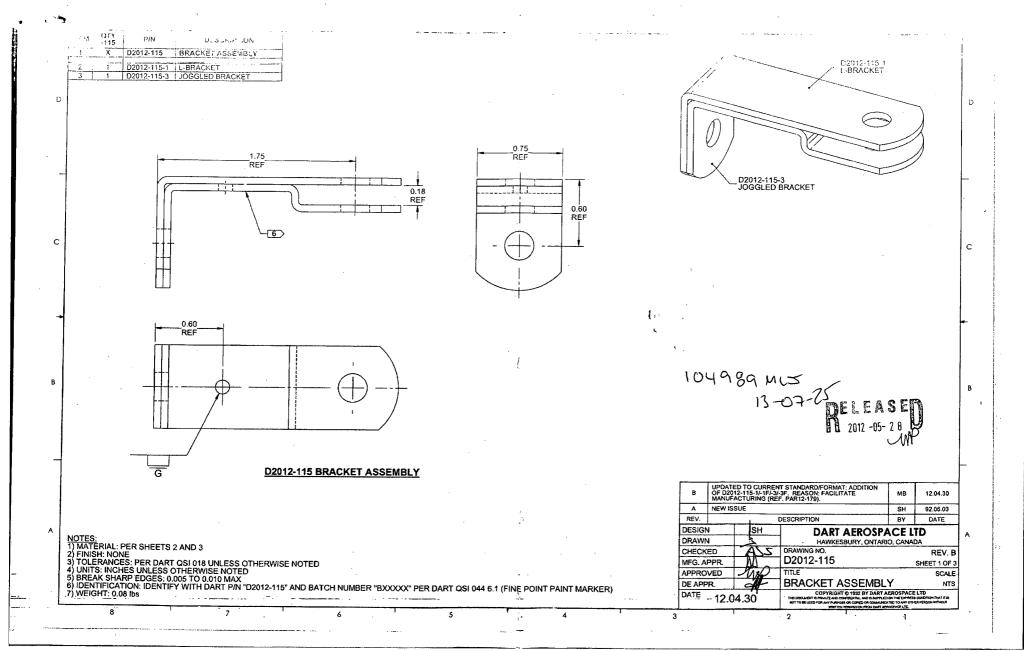
DART AEROSPACE LTD	Work Order:	104989
Description: L-Bracket	Part Number:	D2012-115-1
Inspection Dwg: D2012-115 Rev: B		Page 1 of 1

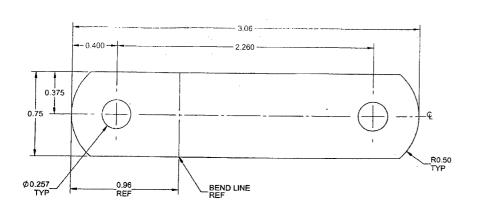
FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.257	+0.006/-0.001	1257	_		V	JKM-01
0.75	+/-0.030	.76	_		V	
0.375	+/-0.010	,375			V	
0.400	+/-0.010	.400	_		v	
2.260	+/-0.010	2.260	_		V	
3.06	+/-0.030	3.07	-		٧	
0.063	+/-0.010	.060	900		V	·
	·					
			٦.			
		•				
					·	
	1,17					
			DAS			
			27)	L	

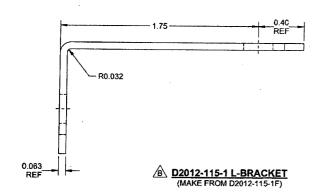
			27		
Measured by:	Ae	Audited by:	9- 89	Preliminary Approval:	
Date:	13,09,03	Date:	B933	Date:	

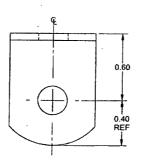
Rev	Date	Change	Revisedaby	Approved
Α	12.10.05	New Issue	KJ 👭	M
			·- · · · · · · · · · · · · · · · · · ·	

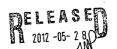




№ D2012-115-1F FLAT PATTERN □







NOTES:
1) MATERIAL: AISI 304/316 SS SHEET ANNEALED 2B FINISH, 0.063 THICK, PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 REF. DART SPEC. M304S-186CA
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 0.04 lbs

D

DESIGN	SH	DART AEROSPACI	LTD
DRAWN	1	HAWKESBURY, ONTARIO, CA	
CHECKED	2/1	DRAWING NO.	REV. B
MFG. APPR.	M	D2012-115	SHEET 2 OF 3
APPROVED	IN	TITLE .	SCALE
DE APPR.	W-	BRACKET ASSEMBLY	NTS
DATE12:0	04:30	COPYRIGHT @ 1982 BY DART AEROSI — THIS DOCUMENT IS PROVATE AND CONFEIGHTUL AND IS SUPPLIED ON THE D	PACE LTD

REV. B

SCALE

NTS

SHEET 3 OF 3

